

WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule selected from the group consisting of:
- a) a nucleic acid molecule comprising a nucleotide sequence which is at least  
5 45% identical to the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the cDNA  
insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_, or a complement  
thereof;
- b) a nucleic acid molecule comprising a fragment of at least 15 nucleotides of  
the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the cDNA insert of the plasmid  
10 deposited with ATCC as Accession Number \_\_\_\_\_, or a complement thereof;
- c) a nucleic acid molecule which encodes a polypeptide comprising the  
amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence  
encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number  
\_\_\_\_\_;
- 15 d) a nucleic acid molecule which encodes a fragment of a polypeptide  
comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid  
sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession  
Number \_\_\_\_\_, wherein the fragment comprises at least 15 contiguous amino acids of  
SEQ ID NO:2, SEQ ID NO:4, or the polypeptide encoded by the cDNA insert of the  
20 plasmid deposited with ATCC as Accession Number \_\_\_\_\_; and
- e) a nucleic acid molecule which encodes a naturally occurring allelic variant  
of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4,  
or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with  
ATCC as Accession Number \_\_\_\_\_, wherein the nucleic acid molecule hybridizes to a  
25 nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof  
under stringent conditions.

2. The isolated nucleic acid molecule of claim 1, which is selected from the  
group consisting of:

a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_, or a complement thereof; and

5 b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_.

10 3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid sequences.

4. The nucleic acid molecule of claim 1 further comprising nucleic acid sequences encoding a heterologous polypeptide.

15 5. A host cell which contains the nucleic acid molecule of claim 1.

6. The host cell of claim 5 which is a mammalian host cell.

20 7. A nonhuman mammalian host cell containing the nucleic acid molecule of claim 1.

8. An isolated polypeptide selected from the group consisting of:

25 (a) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_;

30 b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_,

wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof under stringent conditions; and

- c) a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 45% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, or a complement thereof.

9. The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_.

10. The polypeptide of claim 8 further comprising heterologous amino acid sequences.

11. An antibody which selectively binds to a polypeptide of claim 8.

12. A method for producing a polypeptide selected from the group consisting of:

(a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_.

b) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_; and

c) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a

nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof under stringent conditions; comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

5           13.    The method of claim 12 wherein said polypeptide comprises the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, or an amino acid sequence encoded by the cDNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_.

10           14.    A method for detecting the presence of a polypeptide of claim 8 in a sample, comprising:

- a)     contacting the sample with a compound which selectively binds to a polypeptide of claim 8; and
- b)     determining whether the compound binds to the polypeptide in the sample.

15           15.    The method of claim 14, wherein the compound which binds to the polypeptide is an antibody. \_\_\_\_\_

20           16.    A kit comprising a compound which selectively binds to a polypeptide of claim 8 and instructions for use.

25           17.    A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample, comprising the steps of:

- a)     contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- b)     determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

30           18.    The method of claim 17, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

19. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

20. A method for identifying a compound which binds to a polypeptide of claim 8 comprising the steps of:

- a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test compound; and
- b) determining whether the polypeptide binds to the test compound.

21. The method of claim 20, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- a) detection of binding by direct detecting of test compound/polypeptide binding;
- b) detection of binding using a competition binding assay;
- c) detection of binding using an assay for IL-9/IL-2 receptor-like-mediated signal transduction.

22. A method for modulating the activity of a polypeptide of claim 8 comprising contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

23. A method for identifying a compound which modulates the activity of a polypeptide of claim 8, comprising:

- a) contacting a polypeptide of claim 8 with a test compound; and
- b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.